

REMARKS

In the Office Action the Examiner noted that claims 1-24 were pending in the application and the Examiner rejected all claims. By this Amendment, various claims have been amended, claims 3, 4, 11, 12, 19 and 20 have been cancelled and new claim 25 has been added. Thus, claims 1, 2, 5-10, 13-18 and 21-25 are pending in the application. The Examiner's rejections are traversed below.

REQUESTED DOCUMENTS

In item 1 on page 2 of the Office Action, the Examiner has required that copies be provided of the papers cited on pages 6 and 7 of the specification.

Copies of these papers are being submitted with a concurrently filed Information Disclosure Statement.

CLAIM OBJECTIONS

In item 2 on page 2 of the Office Action the Examiner has objected to claims 1-8 and suggests new claim language for these claims. Applicants have amended claim 1-8 to clarify the claims and to make it clear that the claims are directed to a computer readable recording medium and not to the computer itself.

REJECTION UNDER 35 USC. § 103

In item 3 on pages 3-6 of the Office Action, the Examiner rejected claims 1-24 as unpatentable over the combination of U.S. Patent 6,292,577 to Takahashi and U.S. Patent 5,836,872 to Kenet et al.

TAKAHASHI

U.S. Patent 6,292577 to Takahashi is directed to a resemblance retrieval apparatus and recording medium for recording a resemblance retrieval program. A feature quantity extracting unit 2 extracts a feature quantity, quantitatively expressing a feature of the designated subject image, from the subject image. Takahashi also describes a resemblance retrieval operation as described starting at column 8, line 50.

KENET ET AL.

U.S. Patent 5,836,872 to Kenet et al. is directed to a method for monitoring a region of a body surface which includes recording a digital image of the surface at first and second times

and comparing the first and second images. Kenet describes containing the borders of lesions by segmentation and computing quantitative features of the images including the number of lesions and the location of lesions.

THE PRESENT CLAIMED INVENTION PATENTABLY DISTINGUISHES OVER THE PRIOR ART

Referring to claim 1 as amended, it is submitted that the prior art does not teach or suggest:

calculating image-wise similarities between each of the reference images stored in the database and the diagnosis target image, respectively, by matching the feature quantities of each of the reference images stored in the database with the feature quantities of the diagnosis target image,
wherein said retrieving retrieves reference images in order of similarity as calculated by said calculating, and
wherein said calculating calculates similarities, taking into account a weighting set for each organ.

In particular, while the Takahashi reference describes consideration of "weighting" Takahashi does not teach or suggest the claimed features wherein similarities are calculated by taking into account a weighting set for each organ.

On page 4 and 5 of the Office Action, the Examiner acknowledges that Takahashi does not teach this feature however, the Examiner takes the position that "it would have been obvious to modify the weighting set of Takahashi, so that it is a weighting set for each organ, in order to enhance the system by utilizing a weighting set that is optimized for each organ." The Examiner relied on column 9, line 66 to column 10, line 1 of Takahashi as teaching this feature. This portion of Takahashi states:

"In the first embodiment, weight vectors which had been optimized with respect to respective retrieval conditions are stored in the weight vector database 9"

It is submitted that this general statement does not teach or suggest the claimed feature of calculating similarities taking into account a weighting set for each organ as set forth in claim 1. Further, this feature is not taught or suggested by Kenet et al. Therefore, it is submitted that claim 1 patentably distinguishes over the prior art.

Claim 9 recites:

"similarity calculating means for calculating image-wise similarities between each of the reference images stored in said database and the diagnosis target image, respectively, by matching the feature quantities of each of the reference images stored in said database with the feature quantities of the diagnosis target image,

wherein said reference image retrieving means retrieves reference images in order of similarity as calculated by said similarity calculating means, and wherein said similarity calculating means calculates similarities, taking into account a weighting set for each organ."

Therefore, it is submitted that claim 9 patentably distinguishes over the prior art.

Claim 17 recites:

"a similarity calculating process for calculating image-wise similarities between each of the reference images stored in said database and the diagnosis target image, respectively, by matching the feature quantities of each of the reference images stored in said database with the feature quantities of the diagnosis target image,

wherein said reference image retrieving process retrieves reference images in order of similarity as calculated by said similarity calculating process, and wherein said similarity calculating process calculates similarities, taking into account a weighting set for each organ."

Therefore, it is submitted that claim 17 patentably distinguishes over the prior art.

Dependent claims 2, 5-8, 10, 13-16, 18 and 21-24 depend from one of the above-identified independent claims and include all the features of the claim from which they depend, plus additional features which are not taught or suggested by the prior art. Therefore, it is submitted that claims 2, 5-8, 10, 13-16, 18 and 21-24 patentably distinguish over the prior art.

NEW CLAIM 25

New claim 25 is directed to a diagnosis supporting method which includes:

"calculating image-wise similarities between each of the reference images and the target image by matching the feature quantities of each of the reference images with the feature quantities of the target image, wherein the reference images are retrieved in order of similarity as calculated by said calculating image-wise similarities, and wherein said calculating comprises calculating similarities, taking into account of a weighting set for each organ."

Therefore, it is submitted that claim 25 patentably distinguishes over the prior art.

SUMMARY

It is submitted that none of the references, either taken alone or in combination, teach the present claimed invention. Thus, claims 1, 2, 5-10, 13-18 and 21-25 are deemed to be in a condition suitable for allowance. Reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

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Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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